IC Report To 1940

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

Project	Date	Author

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TITLE

FOREST INSECT SURVEY
CLEARWATER TIMBER PROTECTIVE ASSOCIATION
1940

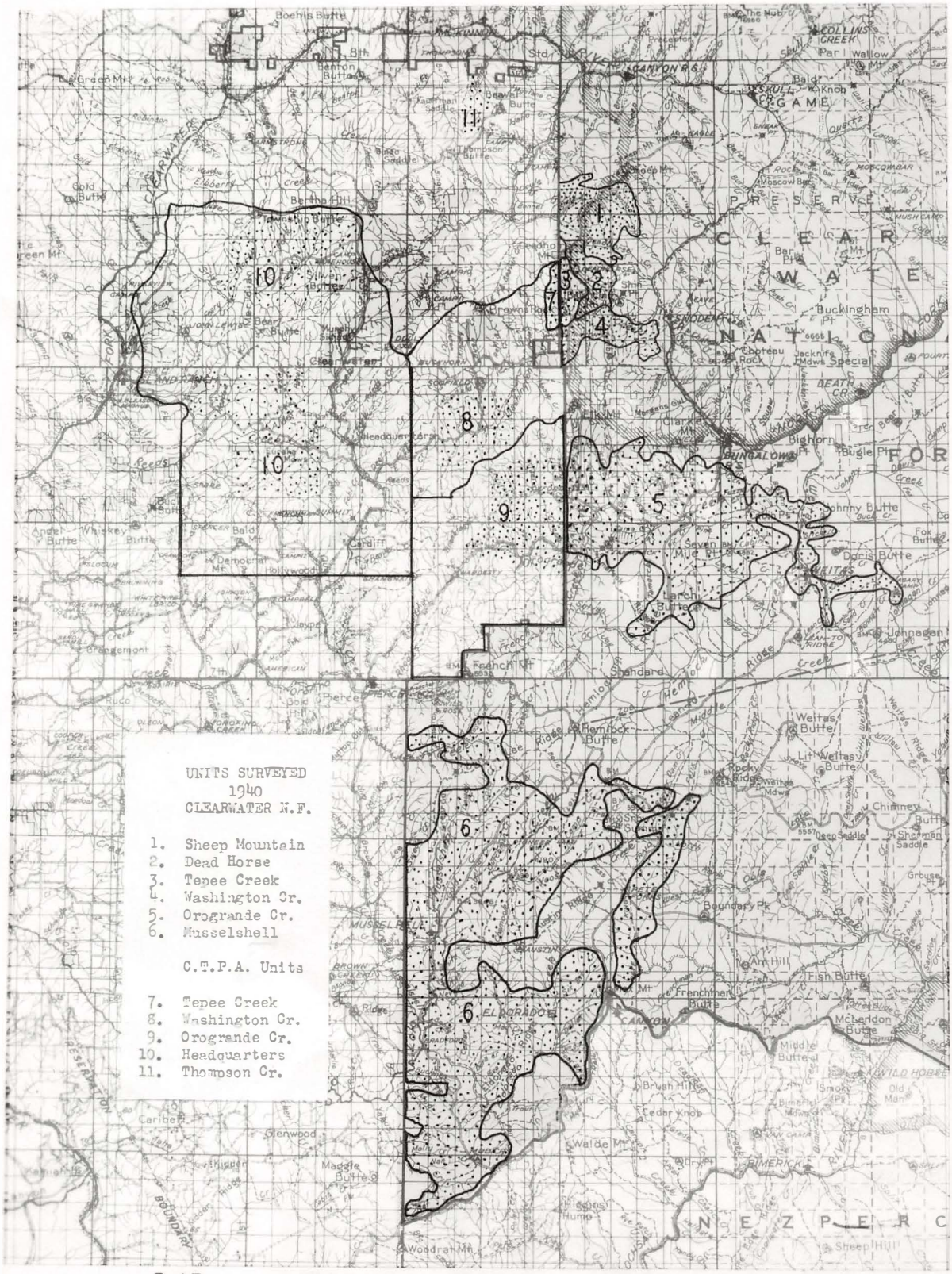
by
Tom T. Terrell
Senior Scientific Aide

Forest Insect Laboratory
Coeur d'Alene, Idaho
December 6, 1940

SUBJECT—

INDEX NO.—

U. S. GOVERNMENT PRINTING OFFICE 8—9742


UNITS SURVEYED
1940
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2. Dead Horse
3. Tepee Creek
4. Washington Cr.
5. Orogrande Cr.
6. Musselshell
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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

WASHINGTON, D. C.

Forest Insect Laboratory
Coeur d'Alene, Idaho
December 13, 1940

U.S. R-1
RECEIVED
DEC 17 1940
TIMBER
MANAGEMENT

Regional Forester

Missoula, Montana

Attention: Mr. Koch

Dear Sir:

I am enclosing copy of a report covering our survey of white pine areas under the supervision of the Clearwater Timber Protective Association. From this report you will note that there are no infestations within these areas for which control is deemed advisable. Your comments will be appreciated.

Very truly yours,

JAMES C. EVENDEN
Senior Entomologist

Enclosure

cc to Forest Supervisor, Clearwater N. F.

FOREST INSECT SURVEY
CLEARWATER TIMBER PROTECTIVE ASSOCIATION
1940

During the past several years insect surveys have been made periodically in the white pine stands under the jurisdiction of the Clearwater Timber Protective Association - largely in conjunction with surveys on the adjacent Clearwater National Forest. In September of the past season surveys were again made in both the National Forest and on C.T.P.A. land to determine the status of the mountain pine beetle infestation in the areas of mature white pine timber.

A summary of the data obtained during the survey is given in the following table. A more thorough discussion of each area is given separately.

SUMMARY OF THE 1940 SURVEY DATA

Unit surveyed	Acres	Infested trees per acre 1939	Infested trees per acre 1940	Percent of stand killed 1940	Total infested trees 1940	
Tepee Creek	640	.17	.16	.3	102	
Washington Creek	20,000	No data	.17	.3	3,400	
Orogrande Creek	12,000	" "	.067	.1	804	L.P.P.
" L.P.P.	*3,720	" "	1.7	No data		6,324
Headquarters						
Alder Creek	13,000	" "	.078	.1	1,014	
Silver Creek	15,000	**.04	.250	.3	3,750	
Totals	64,360				9,070	6,324

* Included in the 12,000 acres
** Data taken on small area

Tepee Creek Unit — Acres -- 640

Infested trees per acre	.16
Percent of stand killed	.28
Infested trees on unit	102

The mountain pine beetle infestation on the privately owned area west of the national forest boundary is much the same as in the larger Tepee Creek unit. While the infestation is shown to be somewhat heavier in terms of infested trees per acre, it is less than the estimate of 1939.

Washington Creek Unit — Acres -- 20,000

Infested trees per acre	.17
Percent of stand killed	.3
Infested trees on unit	3,400

Although an estimate of .17 infested trees per acre was secured on 45.7 acres of sample plots in this area, it is felt that the estimate is high. Five of the 8 infested trees found were in one series of plots and 4 of these 5 trees occurred on one tenth-acre plot. This plot was taken in an open, dry side hill where former insect kill had destroyed nearly all of the timber over an area of several acres. The infested trees were dry, one-sided attacks with very little brood, which is typical of dry areas. Nearly every tree within this small area showed signs of past insect damage where pitching out had occurred.

It is felt that a better estimate would be secured by subtracting these four infested trees and the plot which would give a nearly normal estimate of .07 infested trees per acre, or 1,400 infested trees scattered over this large unit.

Orogrande Unit — Acres -- 12,000

Infested trees per acre	.067
Percent of stand killed	.1
Infested trees on unit	804
Lodgepole pine	3,720 acres
Infested trees per acre	1.7
Infested lodgepole pine	6,324

Throughout the privately owned portion of the Orogrande drainage the white pine stand is nearly all 100 to 120 years in age. The area is heavily stocked with an almost pure stand. The timber is not however of the best grade. It seems to be very thrifty but limby. The boles have many dead limbs that have never pruned off.

The mountain pine beetle infestation in the white pine stand is, at this time, of no consequence; but because of the heavy stocking the area should be closely watched in the future.

In the West Elk, Silver, and Crystal Creek drainages, north of the old Oxford road, in portions of sections 21, 22, 23, 24, 25, 26, 27, 28, and 34, on an area of 3,720 acres, an infestation of epidemic proportions has built up in the lodgepole pine stands. This infestation, which has been recorded before, is confined to the lodgepole pine which is mixed with white pine. There is no evidence other than an occasional tree that the white pine is endangered by this infestation. On 33.9 acres of sample plots examined in the area 58 infested lodgepole were recorded and but one infested white pine. It is felt that the condition is due to some extent to the lodgepole pine being forced out by the growing white pine and perhaps to some extent by a tendency of the emerging insects to select a host similar to that from which they emerged.

It is estimated that nearly 50 percent of the lodgepole pine has been killed within the past 10 years. No percentage of the stand killed during the current season is available, but it is felt to be as much as 10 percent.

Headquarters Unit

Acres -- 13,000 Alder Creek Area
15,000 Silver Creek Area
28,000 Total

Infested trees per acre	.17
Percent of stand infested	.3
Infested trees on unit:	
Alder Creek	1,014
Silver Creek	3,750
Total	4,764

Logging in recent years has decreased the surveyed acreage in the Headquarters Unit of the C.T.P.A. from 46,000 to 28,000.

This unit is comprised largely of two main drainages and their tributaries--Alder Creek just north and west of the C.T.P.A. Headquarters and Silver Creek north of Alder Creek.

Of the two areas in the Headquarters unit, 254 sample plots were examined in the Alder Creek drainage and only a light infestation of .078 infested trees per acre was recorded.

In the Silver Creek drainage 607 sample plots were examined, largely along the Silver Creek road, and 9 infested trees were recorded. In this area near the end of the road, where an epidemic was recorded in 1938, a check over a rather limited area was made in 1939 which indicated only a normal condition. However, the 1940 survey can be considered as more thoroughly depicting the conditions within the area. Although one of the plots recorded 4 infested trees, which tends to inflate the data secured, it is felt that the average for the plots as a whole is not far from correct.

More infested trees occur along the ridge and southern exposure between Silver Creek and the road than in other parts of the unit. No unusual number of sorrel or red trees other than Douglas fir can be

seen in the area from observation points and it is thought that while there is no doubt more than a normal infestation present, the situation is not alarming. A check of this area should be made again in 1941.

Thompson Creek:

Subsequent to the completion of the survey an examination was made in the white pine stands of the Thompson Creek drainage which lies north of Beaver Butte. On the examination 110 chains of continuous sample strips were run across and south up the drainage. The data taken showed an infestation of but .09 infested trees per acre. This figure is believed to be representative for a large part of the drainage. A good view was obtained of most of the timber from two sides and only a few scattered red tops were seen.

The stand in this drainage is very nearly pure white pine estimated to be from 110 to 120 years in age. The stocking is very good, averaging 111 trees per acre over a mile and 30 chains of strip.

CONCLUSIONS

Of the five areas surveyed, there are two that must be considered as potentially serious: the Oxford area of the Orogrande unit and the Silver Creek drainage of the Headquarters unit.

The present infestation in the lodgepole stand near the Oxford ranger station site can be considered as a potential hazard to the white pine stand of the area. However, a close surveillance of this infestation should be all that is necessary for some time because it is entirely possible for the infestation to die out without serious damage to the white pine stands.

An abnormal infestation in the Silver Creek drainage north of the C.T.P.A. headquarters can be regarded as a source of annual loss that will in all probability continue until logging or other corrective measures are taken. It is felt that although the loss in this area is abnormally high, the infestation is not at present of epidemic proportions.

The inclosed photo map will show the location of the units described.

Respectfully submitted,

TOM T. TERRELL
Senior Scientific Aide